

**Amendments to the Claims:**

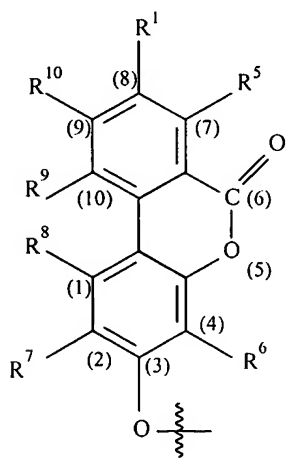
This listing of claims will replace all prior versions, and listings, of claims in this Application:

**Listing of Claims:**

1. (Currently amended) A composition of isolated dibenzo-alpha-pyrone chromoproteins (DCPs) having a molecular weight of about 2 to about 20 KD comprising consisting of:

- a. ~~dibenzo-alpha-pyrones or their derivatives;~~
- b. phosphocreatine;
- c. carotenoid and indigoid chromo-peptides of molecular weights of about  $\leq$  2 KD, wherein said chromo-peptides comprise of a carotenoid moiety, said carotenoid moiety is astaxanthin and equivalents; and
- d. ~~lipids having fatty acyl esters of glycerol, wherein said carbon chain length is about C<sub>14</sub> to about C<sub>24</sub>.~~

wherein said dibenzo-alpha-pyrones have the structure of formula (I)



(I)

wherein:

R<sup>1</sup> is selected from the group consisting of H, OH, O-acyl, and O-amino-acyl; and R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>9</sup>, and R<sup>10</sup> are independently selected from the group consisting of H, OH, O-acyl, O-amino-acyl, and fatty acyl groups.

wherein said phosphocreatine is attached to the 3- or 8-position of said dibenzo-alpha-pyrones via an ester linkage.

2. (Canceled).

3. (Canceled).

4. (Canceled).

5. (Canceled).

6. (Canceled).

7. (Canceled).

8. (Canceled).

9. (Currently amended) A composition according to claim ~~8~~1 wherein ~~said polyunsaturated~~ the fatty acid substituents are polyunsaturated and have a degree of unsaturation of one to six.

10. (Original) A composition according to claim 9 wherein said polyunsaturated fatty acids are eicosapentaenoic acid and / or docosahexaenoic acid.

11. (Canceled).

12. (Canceled).

13. (Original) A skin care, hair care, pharmaceutical, or nutritional or veterinary formulation comprising the composition of claim 1 present therein in an amount of about 0.05 to about 50% by weight.

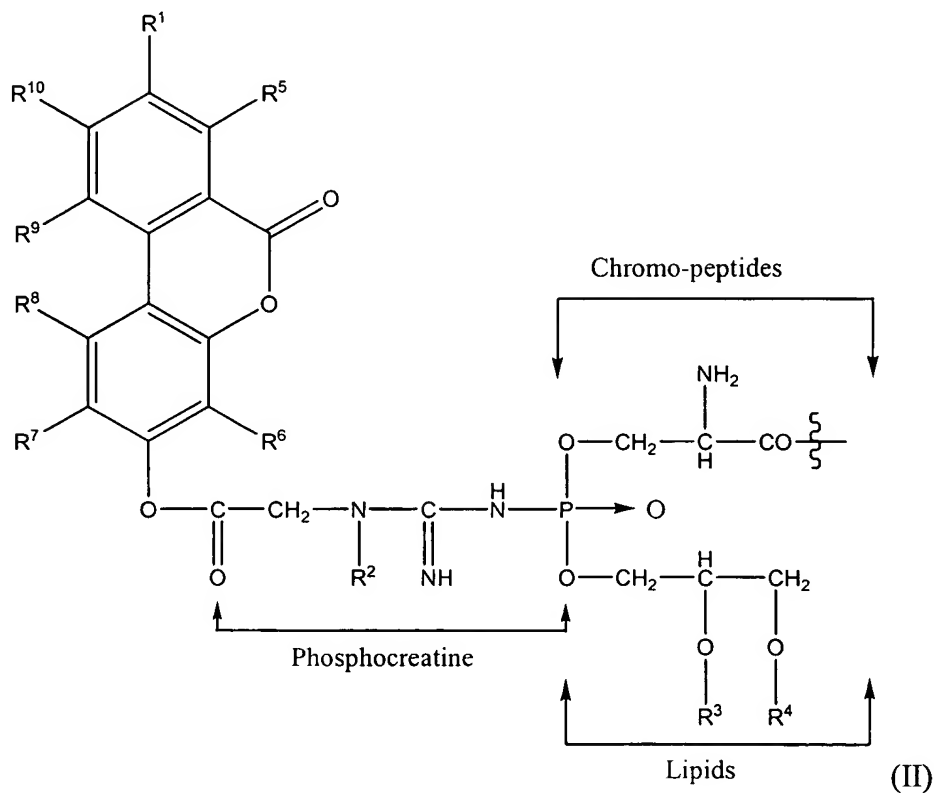
14. (Currently amended) A skin care or skin protection formulation according to claim 13 where said skin care or skin protection formula is in the form of a lotion, cream, gel or spray, and said composition is present in an amount of about 0.05 to about 5% by weight.

15. (Canceled).

16. (Canceled)

17. (Currently amended) A skin care or skin protection formulation according to claim 14, further comprising a cosmetically acceptable carrier and at least one cosmetic adjuvant selected from the group consisting of sunscreens, antioxidants, preservatives, self-tanning agent, perfumes, oils, waxes, propellants, waterproofing agents, emulsifiers, thickeners, humectants, and emollients.

18. (Canceled).
19. (Canceled).
20. (Canceled).
21. (Canceled).
22. (Canceled).
23. (Canceled).
24. (Canceled).
25. (Canceled).
26. (Currently amended) A composition ~~comprising~~ consisting of isolated dibenzo-alpha-pyrone chromoproteins (DCPs) of formula (II):



wherein:

R<sup>1</sup> is selected from the group consisting of H, OH, O-acyl, and O-amino-acyl;

R<sup>2</sup> is selected from H and CH<sub>3</sub>;

R<sup>3</sup> is selected from H and fatty acids;

$R^4$  is selected from H and fatty acids; and

$R^5$ ,  $R^6$ ,  $R^7$ ,  $R^8$ ,  $R^9$ , and  $R^{10}$  are independently selected from the group consisting of H, OH, O-acyl, O-amino-acyl, and fatty acyl groups.

27. (Canceled).

28. (Canceled).

29. (Original) A skin care, hair care, pharmaceutical, or nutritional formulation comprising the composition of claim 26 present therein in an amount of about 0.05 to 50% by weight.

30-38. (Canceled).

39. (New) A skin care or protection formulation according to claim 29 where said skin care or protection formula is in the form of a lotion, cream, gel or spray, and said composition is present in an amount of about 0.05 to about 5% by weight.

40. (New) A composition of dibenzo-alpha-pyrone chromoproteins (DCPs) isolated from foraminifera fossils or coastal molluscs in a pharmaceutical, nutritional, or skin care or hair care formulation comprising isolated dibenzo-alpha-pyrone chromoproteins (DCPs) in an amount of about 0.05 to about 50% by weight.